

Draft Environmental Assessment



Burnt Tree Hole FISHING ACCESS SITE Improvement Project

September 2008



***Montana Fish,
Wildlife & Parks***

Burnt Tree Hole Fishing Access Site Improvement Project Draft Environmental Assessment MEPA, NEPA, MCA 23-1-110 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. **Type of proposed state action:** Montana Fish, Wildlife & Parks (FWP) proposes to replace the deteriorated boat ramp and redesign the ramp approach/loop roads at Burnt Tree Hole Fishing Access Site on the Upper Madison River.
2. **Agency authority for the proposed action:** The 1977 Montana Legislature enacted Montana Section 87-1-605 (MCA), which directs Fish, Wildlife & Parks (FWP) to acquire, develop and operate a system of fishing accesses. The legislature established an earmarked funding account to ensure that this fishing access site function would be established.
3. **Name of project:** Burnt Tree Hole FAS Improvement Project.
4. **Name, address and phone number of project sponsor (if other than the agency):** Montana Fish, Wildlife, and Parks is the project sponsor.
5. **If applicable:**
Estimated start of construction: Spring 2009
Estimated completion of construction: Fall 2009
Current Status of Project Design (% complete): 50
6. **Location affected by proposed action (county, range and township):**
Burnt Tree Hole Fishing Access Site in Madison County. T06S, R01W, Sec. 17.
7. **Project size -- estimate the number of acres that would be directly affected that are currently:**

	<u>Acres</u>		<u>Acres</u>
(a) Developed:		(d) Floodplain	<u>0</u>
Residential	<u>0</u>		
Industrial	<u>0</u>	(e) Productive:	
		Irrigated cropland	<u>0</u>
(b) Open Space/Woodlands/Recreation	<u>2</u>	Dry cropland	<u>0</u>
		Forestry	<u>0</u>
(c) Wetlands/Riparian Areas	<u>0.5</u>	Rangeland	<u>0</u>
		Other	<u>0</u>

8. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.

(a) Permits: permits will be filed at least 2 weeks prior to project start.

<u>Agency Name</u>	<u>Permit</u>
US Corps of Engineers	Section 404
US Corps of Engineers	Section 10
Montana Dept of Environmental Quality	318
Montana Dept of Fish, Wildlife & Parks	124

(b) Funding:

<u>Agency Name</u>	<u>Amount</u>
Madison-Missouri River Fund Grant 2006	
	\$13,125
PPL Montana Match 2006	\$4,375
Montana Fish, Wildlife & Parks Site Protection Fund 2006	\$17,500
PPL Montana 2007	\$20,000
Montana Fish, Wildlife & Parks Site Protection Fund 2007	\$20,000
Total	\$75,000

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

<u>Agency Name</u>	<u>Type of Responsibility</u>
N/A	

8. Narrative summary of the proposed action or project:

Burnt Tree Hole FAS is located on the Madison River south of Ennis, Montana at river mile 53 (see Figs. 1 and 2). Burnt Tree Hole is one of 15 FWP-managed sites on the Madison River. Due to its national reputation, heavy fishing pressure, good access, high scenic value, and excellent wild trout populations, it has been classified as a "Blue Ribbon" trout stream. The stretch of the Madison from Ennis Lake to Hebgen Dam, where Burnt Tree Hole is located, has ranked number 1 in angler days in the Region and State since 2003, with 116,345 angler days in 2005.

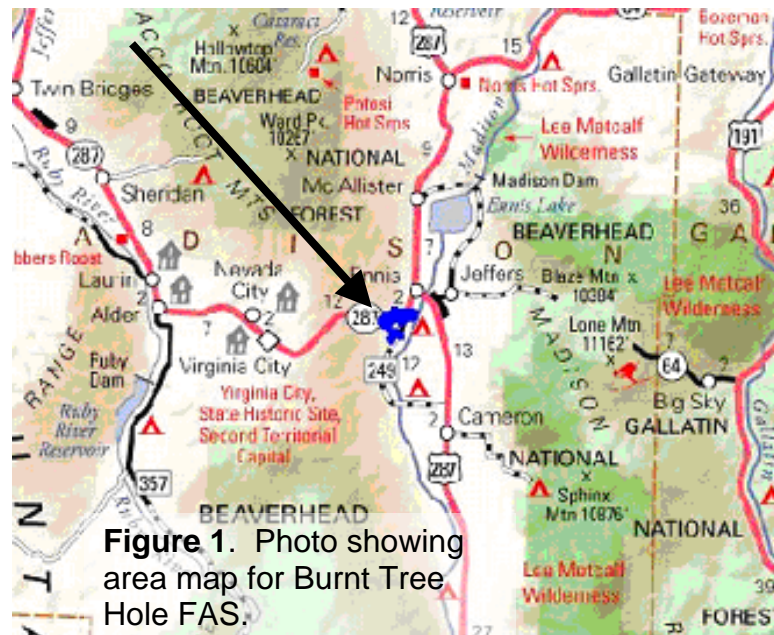
Burnt Tree Hole FAS is day-use only and currently consists of a boat ramp, latrine, and upper and lower loop road (see Figs. 3 and 4). The boat ramp is connected to the lower loop, and parking areas are provided on both loops. Several problems exist at this site.

The most serious problem is that the existing concrete plank boat ramp is failing and needs to be replaced. The ramp consists of dilapidated concrete planks, and the end of the ramp has been undercut (see Fig. 5). This has created a vertical drop-off that could potentially damage boat trailers when unloading boats. The underlying problem is that the ramp is oriented upstream which has caused serious scour to occur at its base. The orientation of the ramp also forces operators to fight against the current when loading and unloading boats.

A second problem is that the configuration of the two loops and parking areas does not provide the most efficient use of the space as possible, and getting a boat and trailer to the boat ramp and back up can be awkward. These issues are exacerbated during periods of high visitation. A third problem is that a portion of the riverbank immediately upstream of the boat ramp is sloughing off into the river (see Fig. 6).

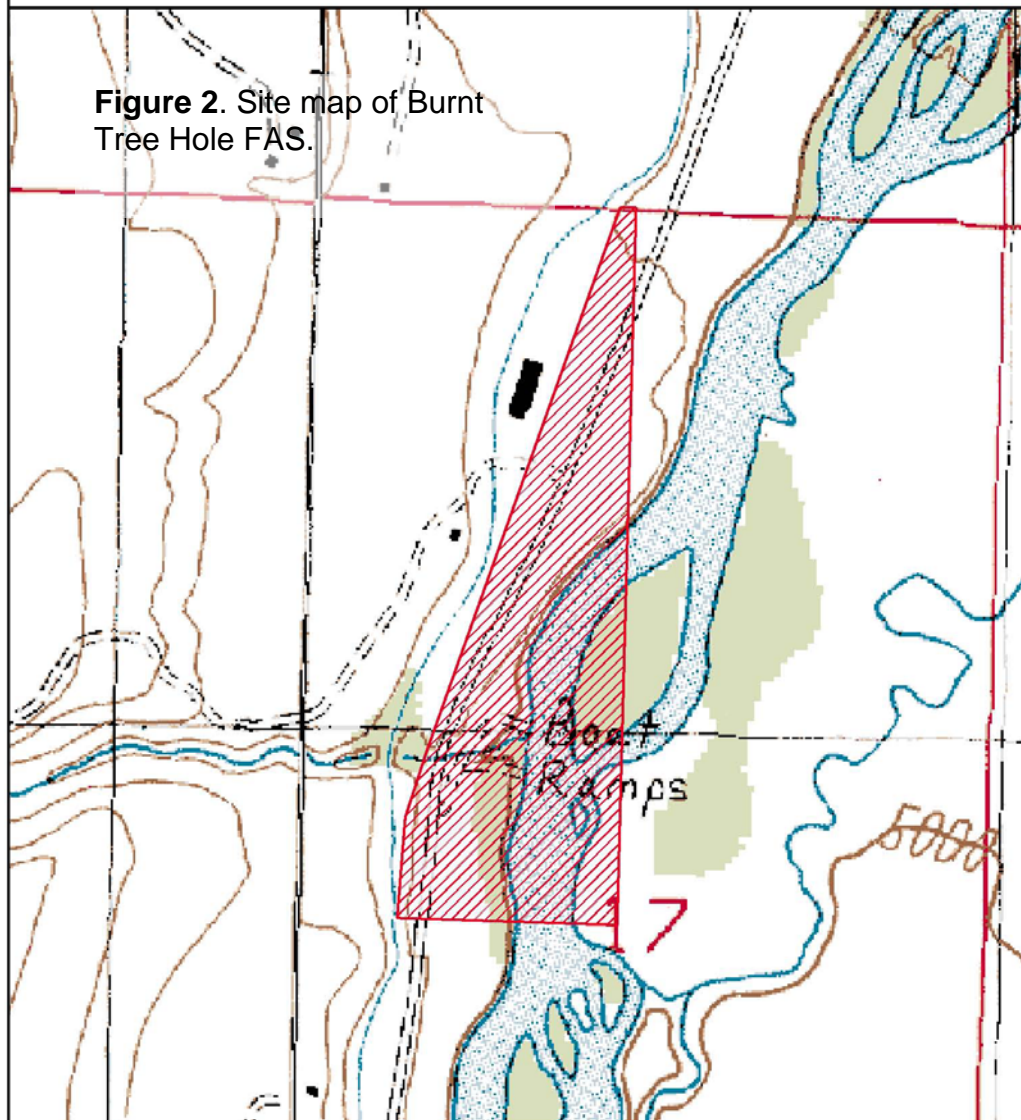
In response to these issues, FWP is proposing to implement several improvements and site-protection measures at Burnt Tree Hole FAS. First, the failing boat ramp would be removed and replaced with a new ramp. The new ramp will be cast in place concrete and will be reoriented downstream to make boat loading and unloading safer as well as eliminate the undercutting.

The second part of the project involves the redesign of the loop roads, parking areas, and approach to the boat ramp. FWP engineers have proposed three different designs, which are discussed in more detail in Part II. A small swale runs through the FAS in between the two loop roads that influenced the plans. All three designs would improve traffic flow and parking efficiency.



Burnt Tree Hole FAS

Figure 2. Site map of Burnt Tree Hole FAS.



Lands File Number: 3350

T6S/R1W



29.279 acres



Fee Simple
FAS Parcel

0 acres



Leased
FAS Parcel

Fishing Access Sites (FAS) are digitized and maintained by the Information Services Unit of the Montana Fish, Wildlife and Parks. FAS's were digitized at 1:24,000 using the COGO module of Arc/info. The background image is a USGS 7.5 minute quadrangle digital raster graphic.

0 500 1000

Scale in feet
Scale 1:6000



Montana Fish,
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Map produced by NRIS,
request# 00FWP6 - September 21, 1999

Figure 3. Photo showing upper loop road of Burnt Tree Hole FAS.



Figure 4. Photo showing lower loop road at Burnt Tree Hole FAS. The arrow indicates the location of the boat ramp.



Figure 5. Photo of failing boat ramp at Burnt Tree Hole FAS.

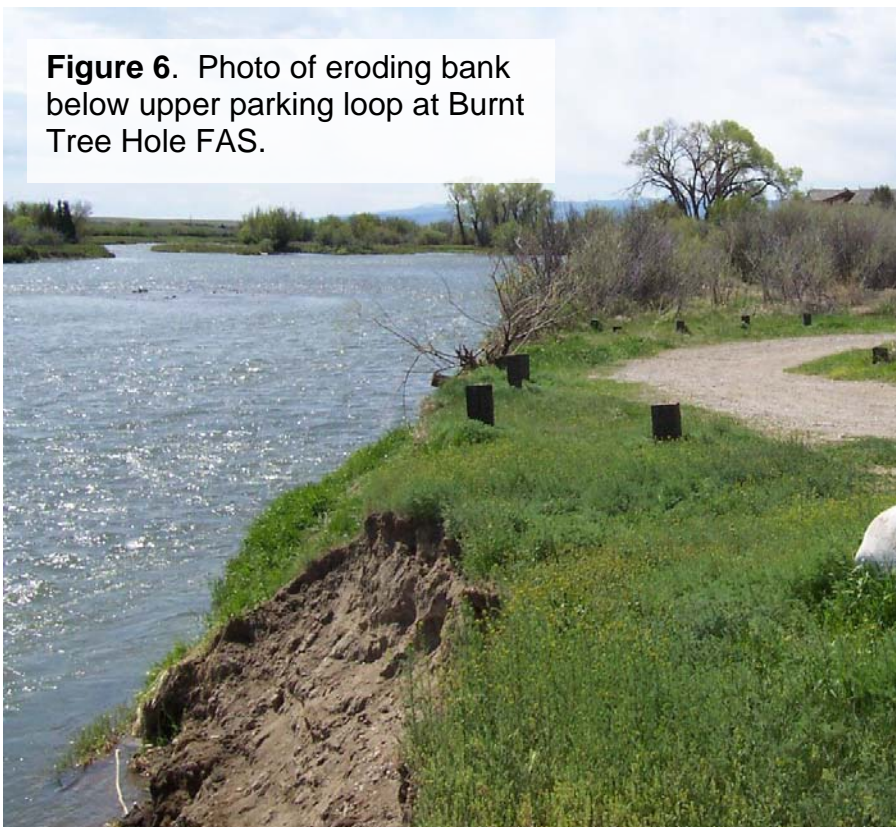


Figure 6. Photo of eroding bank below upper parking loop at Burnt Tree Hole FAS.

The third aspect of the project involves taking measures to stabilize the eroding riverbank. FWP engineers have proposed constructing a rock vane upstream of the boat ramp and slightly downstream from the sloughing bank (see designs in Part II). The rock vane will slow water currents in the area which is expected to reduce erosive power on the bank as well as protect the boat ramp from scour.

FWP engineers have proposed three different design plans for this site, all of which would address these three issues somewhat differently. Those options are described below. This proposed project is in line with long-term goals set by the agency to maintain public fishing access sites in such a way as to protect the site as well as providing for the public's safety and enjoyment of angling and water-based recreation.

PART II. ENVIRONMENTAL REVIEW

1. Description and analysis of reasonable alternatives:

Alternative A: No Action

If no action is taken, FWP would not replace the dilapidated boat ramp at Burnt Tree Hole FAS, install a rock vane, or implement a redesign of the parking area and entrance road. If the proposed projects are not executed, boat access at this location may eventually be lost because of the failing boat ramp. Also, the bank upstream of the boat ramp would likely continue to erode if a countermeasure is not put in place.

Alternative B: Proposed Action

In the preferred alternative, FWP would proceed with plans to improve public access to the Madison River by implementing several site projects at Burnt Tree Hole FAS. In Design Option One, the boat ramp would remain in the same location but would be reoriented to face downstream. The ramp would also be connected to the upper loop road, and the existing ramp approach would be removed and reclaimed. The lower loop road would remain, and four additional spaces for vehicles and trailers would be added there (see Fig. 7). The small swale would remain largely undisturbed, only about the last 20 ft would have to be rerouted so it could drain into the river on the downstream side of the ramp. The proposal would also require some widening and other road improvements to the upper loop and roadway barrier rock to keep vehicles on hardened surfaces. The advantages to this design are its relative ease of construction and lower amount of disturbed vegetation. Its main drawback is that users would have to back their trailer for a longer distance than the other two options. FWP engineers believe that this redesign would address the problems at Burnt Tree Hole FAS most effectively. The cost estimate for this design is \$50,971.

Alternative C:

Alternative C is similar to Alternative B in that the boat ramp would still be replaced and reoriented downstream. However, the ramp would remain tied to the lower loop via a second approach (see Fig. 9). The old approach would remain as well but would be re-engineered and reconstructed. The two approaches would form a loop that would allow vehicles to drive forward for much of the boat launch process and necessitates only a short backing distance. The swale would be rerouted so it ran alongside the new approach on the south. Four additional truck/trailer parking spaces would also be added to the lower loop in this Alternative. This option allows for good traffic flow, but the slopes of the two approaches are steep and engineering would be the most difficult of the three. The cost estimate for this design is \$50,944.

Alternative D:

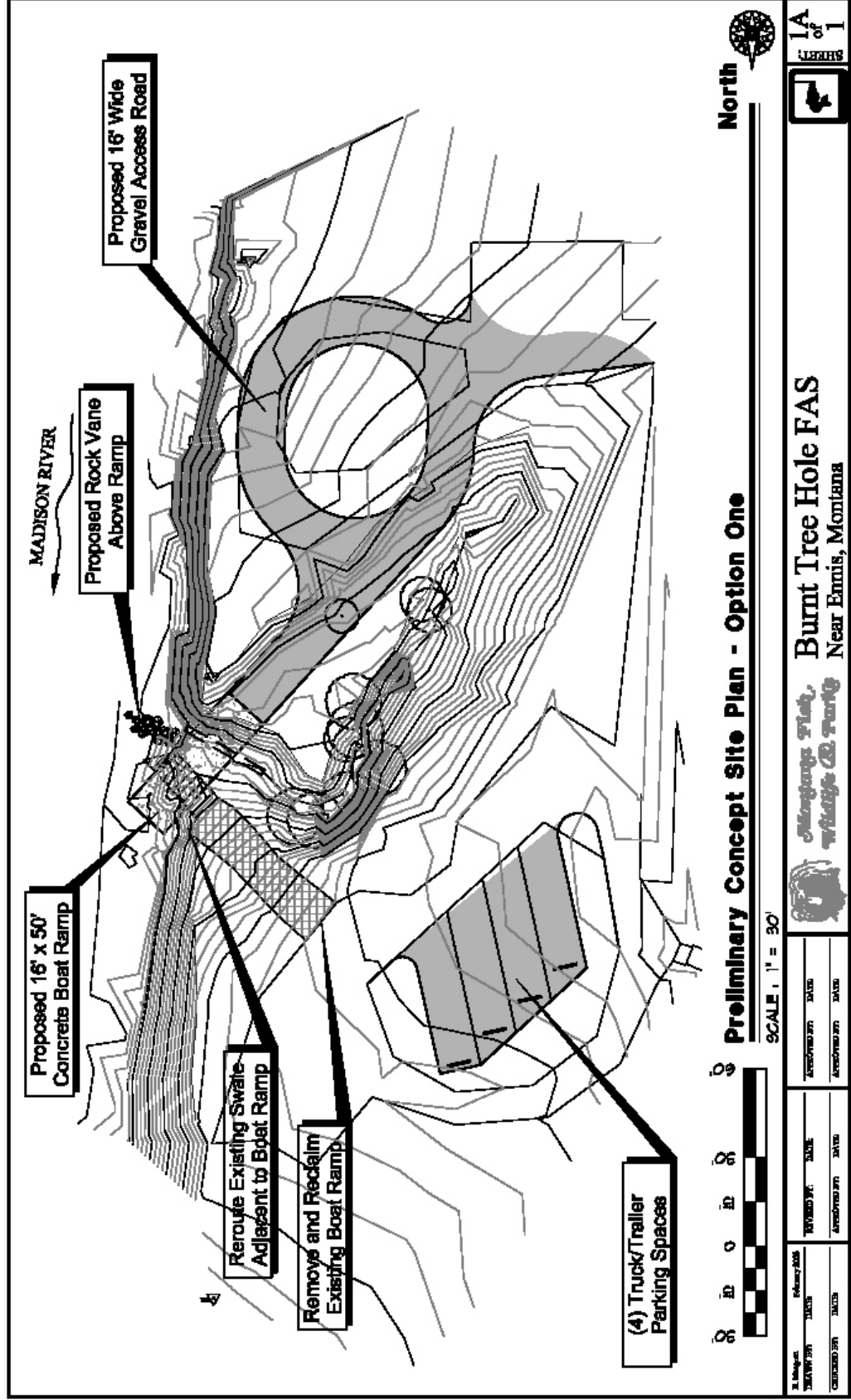
Alternative D is similar to Alternatives B and C in that the boat ramp would still be replaced and reoriented downstream. It differs in that users would approach the ramp from the lower loop and drive to the upper loop after unloading. In addition, the upper loop would not be widened or otherwise improved and the swale would not be rerouted. A culvert would be installed under the boat ramp approach, and the swale would continue to drain upstream of the boat ramp (see Fig. 8). Four additional truck/trailer parking spaces would also be added to the lower loop. The cost estimate is \$47,527.

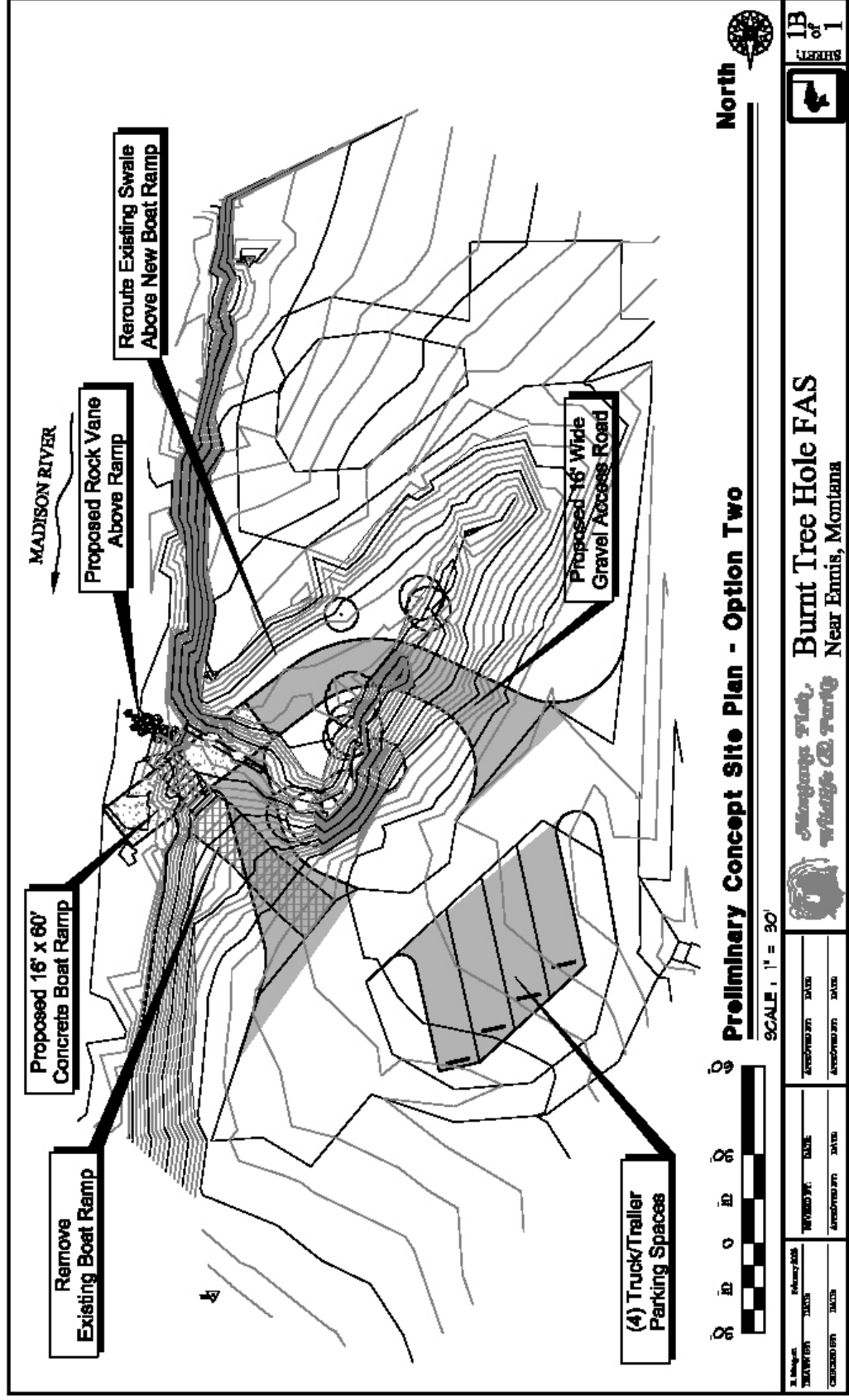
2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

There are no mitigation, stipulations, or other controls associated with the actions. Therefore, no evaluation is necessary.

3. Private Property Regulatory Restrictions:

Actions described in this environmental analysis do not regulate the use of private, tangible personal property, and therefore do not require an evaluation of regulatory restrictions on private property.





PART III. ENVIRONMENTAL REVIEW CHECKLIST

3. Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.

A. PHYSICAL ENVIRONMENT

1. <u>LAND RESOURCES</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. **Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?			X		yes	1b.
c. **Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?			X positive			1d.
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
f. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (attach additional pages of narrative if needed):

- 1b. Soil would be disturbed and over-covered during the construction of the boat ramp and approach and loop road parking improvements in all three designs. Negative impacts can be mitigated by the adherence to Best Management Practices (BMP's) during all phases of construction (please see Attachment C).
- 1d. The installation of a rock vane upstream of the boat ramp is expected to have a positive impact on the bank that is currently experiencing erosion at that location. The replacement and reorientation of the boat ramp will likely have a slightly positive effect in comparison to the existing ramp.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

2. <u>AIR</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. **Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)			X			2a.
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. ***For P-R/D-J projects, will the project result in any discharge, which will conflict with federal or state air quality regs? (Also see 2a.)						
f. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Air Resources (attach additional pages of narrative if needed):

- 2a. Minor and temporary dust and vehicle emissions will be created by heavy equipment during construction of the ramp and approach, parking expansion, and loop improvements.

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** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

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3. WATER Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated*	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. *Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			X		yes	3a.
b. Changes in drainage patterns or the rate and amount of surface runoff?			x			3b.
c. Alteration of the course or magnitude of floodwater or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. ****For P-R/D-J, will the project affect a designated floodplain? (Also see 3c.)						
m. ***For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a.)						
n. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Water Resources (attach additional pages of narrative if needed):

- 3a. Short-term increases in turbidity will occur in the immediate vicinity of the boat ramp during project construction. Best Management Practices will be followed in all aspects of the project (please see Attachment C), and the proper permits will be obtained.
- 3b. Alternatives B and D involve changes in the drainage pattern of a small swale that runs through the site, while Alternative C would require the use of a culvert for that swale.

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** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

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4. VEGETATION Will the proposed action result in?	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			X			4a.
b. Alteration of a plant community?			X			4b.
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				4c.
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X			4e.
f. ****For P-R/D-J, will the project affect wetlands, or prime and unique farmland?						
g. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Vegetation (attach additional pages of narrative if needed):

- 4a. The proposed project would require the removal of approximately 1/8 acre of vegetation for the parking lot, and 1/2 acre of vegetation for the entrance road. Vegetation in the project area is comprised mainly of native and non-native grasses and forbs. This plant community is common and well represented locally and regionally, and the overall effect would not be significant.
- 4b. Please see comment 4a.
- 4c. A search of the Montana Natural Heritage Database revealed one plant species of concern (spiny skeletonweed) that may occur within the larger project area, but has not been observed within the project site. Please see Appendix 2 for additional information on this species of concern.
- 4e. Disturbed soils could become colonized by noxious weeds. FWP would re-seed or re-vegetate all disturbed areas and actively manage the entire site for noxious weeds under the FWP Region 3 Weed Management Plan.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

** 5. FISH/WILDLIFE Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?		X				5b.
c. Changes in the diversity or abundance of nongame species?		X				5c.
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				5f.
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. ****For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f.)						
i. ***For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d.)						
j. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Fish and Wildlife (attach additional pages of narrative if needed):

- 5b. It is unlikely that the proposed project would cause any changes in the diversity or abundance of game or non-game species, as human presence is already fairly heavy at the site and the development footprint is not changing appreciably.
- 5c. Please see Comment 5b.
- 5f. A search of the Natural Resources Information System (NRIS) provided by the Montana Natural Heritage Program showed that the project area is within possible gray wolf (an endangered species) habitat. No observations of wolves have been recorded at this location, but it is possible that they have moved through the area. The proposed project is unlikely to have an impact on wolves, should they occur, because of the existing human presence in the area. Please see Appendix 2 for a complete listing of species of concern found in the larger project area.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

B. HUMAN ENVIRONMENT

6. <u>NOISE/ELECTRICAL EFFECTS</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Increases in existing noise levels?			x			6a.
b. Exposure of people to serve or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Noise/Electrical Effects (attach additional pages of narrative if needed):

- 6a. There would be a temporary increase in noise level during construction, but it would end after completion of the project. It is unlikely that adjacent landowners would be affected.

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** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

7. LAND USE Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				7a.
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Use (attach additional pages of narrative if needed):

- 7a. The proposed action would not alter or interfere with the productivity or profitability of the existing land use. It not does it conflict with a designated natural area or area of unusual scientific or educational importance.

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** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

8. RISK/HEALTH HAZARDS Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?			X		yes	8a.
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. ***For P-R/D-J, will any chemical toxicants be used? (Also see 8a)						
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Risk/Health Hazards (attach additional pages of narrative if needed):

- 8a. Noxious weed control at Burnt Tree Hole FAS is continuous and ongoing. The FWP Region 3 Weed Management Plan calls for an integrated method of managing weeds, including the use of herbicides. The use of herbicides would be in compliance with application guidelines and conducted by people trained in safe handling techniques. Weeds would also be controlled using mechanical or biological means in certain areas to reduce the risk of chemical spills or water contamination.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

9. COMMUNITY IMPACT Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				9e.
f. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Community Impact (attach additional pages of narrative if needed):

- 9e. The proposed project is not expected to cause any impacts to the community surrounding Burnt Tree Hole FAS.

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** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

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10. <u>PUBLIC SERVICES/TAXES/UTILITIES</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased use of any energy source?		X				
e. **Define projected revenue sources						10e.
f. **Define projected maintenance costs.						10f.
g. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Public Services/Taxes/Utilities (attach additional pages of narrative if needed):

- 10e. The cost of the proposed improvements is estimated to be \$75,000. The revenue sources are FWP's site protection fund (\$17,500 in 2006 and \$20,000 in 2007), PPL Montana (\$4375 in 2006 and \$20,000 for 2007), and The Missouri-Madison River Trust Fund \$13,125 in 2006).
- 10f. Yearly maintenance costs for the site are estimated to be \$1,500 for operations and maintenance and \$1,750 for personal services for a total of \$3,300.

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**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

** 11. <u>AESTHETICS/RECREATION</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				11a.
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. **Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report.)			X			11c.
d. ***For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.)						
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Aesthetics/Recreation (attach additional pages of narrative if needed):

11c. Please see Attachment A for Tourism Report.

- * Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.
- ** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).
- *** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- **** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

12. <u>CULTURAL/HISTORICAL RESOURCES</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. **Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		X				12a.
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. ****For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.)						
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Cultural/Historical Resources (attach additional pages of narrative if needed):

12a. The proposed action would not destroy or alter any site, structure or object of historic importance. Please see Attachment B for SHPO letter of clearance.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

SIGNIFICANCE CRITERIA

13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		X				13a.
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. ***For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)						
g. ****For P-R/D-J, list any federal or state permits required.						

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Significance Criteria (attach additional pages of narrative if needed):

13a. This EA found no significant impacts to the human or physical environment from the proposed action.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

PART IV. NARRATIVE EVALUATION AND COMMENT

The Madison River between Quake Lake and Ennis was the most heavily fished body of water in Montana, registering 116,345 angler days in the 2005/2006 license year. Accommodating this level of use with usable facilities and reasonable access is important to FWP. The dilapidated condition of the existing boat ramp at Burnt Tree Hole FAS makes launching boats at this site very difficult, and the existing loop roads and parking areas are not designed for maximum efficiency and optimum traffic flow. The reorientation of the boat ramp requires a corresponding alteration in the orientation of the approach which provides an opportunity to redesign the paved areas of the site in a way that would improve flow. All three proposed designs would improve access and usability of this popular site without causing any significant impacts to the human or physical environment.

PART V. PUBLIC PARTICIPATION

- 1. Describe the level of public involvement for this project if any, and, given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?**

The public will be notified by way of two legal notices and a press release in the *Bozeman Chronicle*, *Dillon Tribune*, *Helena Independent Record*, *Montana Standard*, *West Yellowstone News*, and the *Madisonian*, and by public notice on the Fish, Wildlife & Parks web page:

<http://fwp.state.mt.us/publicnotices> . Individual notices will be sent to those that have requested one. A public meeting addressing this project is not planned at this time.

- 2. Duration of comment period, if any.**

A 30-day comment period is proposed. This level of public involvement is appropriate for this scale of project.

The comment period would run from September 12, 2008, until October 14, 2008. Comments should be sent to:

Todd Garrett
R3 FAS Manager
1400 South 19th Avenue
Bozeman, MT 59718-5496
(406) 994-6987
tgarrett@mt.gov

PART V. EA PREPARATION

- 1. Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)?**

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.

Based on an evaluation of the primary, secondary, and cumulative impacts to the physical and human environment, this environmental review found no significant impacts from the proposed action. In determining the significance of the impacts, Fish, Wildlife and Parks assessed the severity, duration, geographic extent, and frequency of the impact, the probability that the impact would occur or reasonable assurance that the impact would not occur. FWP assessed the growth-inducing or growth-inhibiting aspects of the impact, the importance to the state and to society of the environmental resource or value affected, any precedent that would be set as a result of an impact of the proposed action that would commit FWP to future actions, and potential conflicts with local, federal, or state laws. As this EA revealed no significant impacts from the proposed actions, an EA is the appropriate level of review and an EIS is not required.

- 2. Name, title, address and phone number of the person(s) responsible for preparing the EA:**

Linnaea Schroeer-Smith	Jerry Walker	Allan Kuser
Independent Contractor	Region 3 Parks Manager	Fishing Access Site Coordinator
1027 9 th Ave	1400 S. 19 th Ave	1420 East 6 th Ave
Helena, MT 59601	Bozeman, MT 59718	Helena, MT 59620
(406) 495-9620	(406) 994-3552	(406) 444-7885

- 3. List of agencies consulted during preparation of the EA:**

Montana Fish, Wildlife & Parks

Parks Division

Wildlife Division

Fisheries Division

Design & Construction Bureau

Lands Division

Montana State Historic Preservation Office (SHPO)

Montana Department of Commerce – Tourism

Montana Natural Heritage Program – Natural Resources Information System (NRIS)

APPENDIX 1
HB495
PROJECT QUALIFICATION CHECKLIST

Date March 17, 2008

Person Reviewing Linnaea Schroeer-Smith

Project Location: Burnt Tree Hole Fishing Access Site in Madison County. 1, R01W, Sec. 17.

Description of Proposed Work: Montana Fish, Wildlife & Parks (FWP) proposes to replace the deteriorated boat ramp and redesign the ramp approach/loop roads at Burnt Tree Hole FAS on the Upper Madison River.

The following checklist is intended to be a guide for determining whether a proposed development or improvement is of enough significance to fall under HB 495 rules. (Please check ☐ all that apply and comment as necessary.)

- ☒ **A. New roadway or trail built over undisturbed land?**
Comments: Approximately 80 ft of gravel-surface road would be constructed over undisturbed land for the ramp approach in all three alternatives.
- ☐ **B. New building construction (buildings <100 sf and vault latrines exempt)?**
Comments: None
- ☒ **C. Any excavation of 20 c.y. or greater?**
Comments: The proposed construction in all three alternatives would likely require the excavation of more than 20 c. y. of material.
- ☒ **D. New parking lots built over undisturbed land or expansion of existing lot that increases parking capacity by 25% or more?**
Comments: None. The proposed parking area would be constructed over undisturbed land.
- ☐ **E. Any new shoreline alteration that exceeds a double wide boat ramp or handicapped fishing station?**
Comments: None.
- ☐ **F. Any new construction into lakes, reservoirs, or streams?**
Comments: None
- ☐ **G. Any new construction in an area with National Registry quality cultural**

artifacts (as determined by State Historical Preservation Office)?

Comments: SHPO clearance for this project has been obtained (see Attachment B.

[] H. Any new above ground utility lines?

Comments: None

[] I. Any increase or decrease in campsites of 25% or more of an existing number of campsites?

Comments: None.

[] J. Proposed project significantly changes the existing features or use pattern; including effects of a series of individual projects?

Comments: None

If any of the above are checked, HB 495 rules apply to this proposed work and should be documented on the MEPA/HB495 CHECKLIST. Refer to MEPA/HB495 Cross Reference Summary for further assistance.

Appendix 2

Sensitive Plants and Animals in the proposed Burnt Tree Hole FAS Area

Species of Concern Terms and Definitions

Montana Species of Concern. The term "**Species of Concern**" includes taxa that are at-risk or potentially at-risk due to rarity, restricted distribution, habitat loss, and/or other factors. The term also encompasses species that have a special designation by organizations or land management agencies in Montana, including: Bureau of Land Management Special Status and Watch species; U.S. Forest Service Sensitive and Watch species; U.S. Fish and Wildlife Service Threatened, Endangered and Candidate species.

▼ **Status Ranks (Global and State)**

The international network of Natural Heritage Programs employs a standardized ranking system to denote global (**G** -- range-wide) and state status (**S**) (NatureServe 2003). Species are assigned numeric ranks ranging from 1 (critically imperiled) to 5 (demonstrably secure), reflecting the relative degree to which they are "at-risk". Rank definitions are given below. A number of factors are considered in assigning ranks -- the number, size and distribution of known "occurrences" or populations, population trends (if known), habitat sensitivity, and threat. Factors in a species' life history that make it especially vulnerable are also considered (e.g., dependence on a specific pollinator).

Status Ranks

Code	Definition
G1 S1	At high risk because of extremely limited and/or rapidly declining numbers, range, and/or habitat, making it highly vulnerable to global extinction or extirpation in the state.
G2 S2	At risk because of very limited and/or declining numbers, range, and/or habitat, making it vulnerable to global extinction or extirpation in the state.
G3 S3	Potentially at risk because of limited and/or declining numbers, range, and/or habitat, even though it may be abundant in some areas.
G4 S4	Uncommon but not rare (although it may be rare in parts of its range), and usually widespread. Apparently not vulnerable in most of its range, but possibly cause for long-term concern.
G5 S5	Common, widespread, and abundant (although it may be rare in parts of its range). Not vulnerable in most of its range.

1. *Canis lupus* (Gray Wolf).

Natural Heritage Ranks:

State: **S3**

Global: **G4**

Federal Agency Status:

U.S. Fish and Wildlife Service: **LE, XN**

U.S. Forest Service: **Endangered**

U.S. Bureau of Land Management: **Special Status**

No observational data exists for this specific site, but the project area is inside of possible wolf habitat.

2. *Spizella breweri* (Brewer's Sparrow)

Natural Heritage Ranks:

State: **S2B**

Global: **G5**

Federal Agency Status:

U.S. Fish and Wildlife Service:

U.S. Forest Service:

U.S. Bureau of Land Management: **Sensitive**

An Element Occurrence for this species overlaps with the proposed project site at Burnt Tree Hole FAS. Therefore, it is likely that this species is at least an occasional visitor to the site.

3. *Haliaeetus leucocephalus* (Bald Eagle).

Natural Heritage Ranks:

State: **S3**

Global: **G5**

Federal Agency Status:

U.S. Fish and Wildlife Service: **DM**

U.S. Forest Service: **Threatened**

U.S. Bureau of Land Management: **Special Status**

Numerous Element Occurrences for this species occur in the larger area of which Burnt Tree Hole is a part. It is likely that this species at least an occasional visitor to the site.

4. *Stephanomeria spinosa* (Spiny Skeletonweed)

Natural Heritage Ranks:

State: **S1**

Global: **G4**

Federal Agency Status:

U.S. Fish and Wildlife Service:

U.S. Forest Service:

U.S. Bureau of Land Management: **Sensitive**

This plant occurs in Montana at the northeastern edge of its range, where it is known only from grasslands in the Madison and Centennial valleys. It is unlikely that this species occurs at this particular location as it favors arid grasslands rather than moist bottomlands.

Information courtesy of Montana Natural Heritage Program

ATTACHMENT A
TOURISM REPORT
MONTANA ENVIRONMENTAL POLICY ACT (MEPA)/HB495

The Montana Department of Fish, Wildlife and Parks has initiated the review process as mandated by HB495 and the Montana Environmental Policy Act in its consideration of the project described below. As part of the review process, input and comments are being solicited. Please complete the project name and project description portions and submit this form to:

Carol Crockett
Tourism Development Specialist, Travel Montana
Montana Commerce Department
301 South Park Avenue
Helena, MT 59601
406-841-2796, FAX 406-841-2871
ccrockett@mt.gov

Project Name: Burnt Tree Hole FAS Improvement Project.

Project Location: Burnt Tree Hole Fishing Access Site in Madison County. T06S, R01W, Sec. 17.

Project Description: Montana Fish, Wildlife & Parks (FWP) proposes to replace the deteriorated boat ramp and redesign the ramp approach/loop roads at Burnt Tree Hole FAS on the Upper Madison River.

1. Would this site development project have an impact on the tourism economy?
NO YES If YES, briefly describe:

Yes, as described, the project has the potential to positively impact the tourism and recreation industry economy.

2. Does this impending improvement alter the quality or quantity of recreation/tourism opportunities and settings?
NO YES If YES, briefly describe:

Yes, as described, the project could improve the quality and quantity of the tourism and recreational opportunities.

Signature Carol Crockett Date April 24, 2008

ATTACHMENT B



MONTANA HISTORICAL SOCIETY

225 North Roberts ♦ P.O. Box 201201 ♦ Helena, MT 59620-1201
♦ (406) 444-2694 ♦ FAX (406) 444-2696 ♦ www.montanahistoricalsociety.org ♦

FWP FILE # 160.1. Burnt Tree Hole FAS

I have conducted a cultural resource file search for the above-cited project located in Section 17, T6S R1W. According to our records there have been two previously recorded sites within the designated search locale. In addition to the sites there have been a few previously conducted cultural resource inventories done in the area. If you would like any further information regarding these sites or reports you may contact me at the number listed below.

We feel that there is a low likelihood cultural properties will be impacted. We, therefore, feel that a recommendation for a cultural resource inventory is unwarranted at this time. However, should cultural materials be inadvertently discovered during this project we would ask that our office be contacted and the site investigated. Thank you for consulting with us.

Sincerely,

A handwritten signature in dark ink, appearing to read "Damon Murdo". The signature is fluid and cursive.

Damon Murdo
Cultural Records Manager

File: FWP/PARKS/2007



STATE HISTORIC PRESERVATION OFFICE ♦ 1410 8th Ave ♦ P.O. Box 201202 ♦ Helena, MT 59620-1202
♦ (406) 444-7715 ♦ FAX (406) 444-6575

ATTACHMENT C
MONTANA FISH, WILDLIFE AND PARKS
BEST MANAGEMENT PRACTICES FOR FISHING ACCESS SITES
10-02-02

III. ROADS

A. Road Planning and location

1a. Minimize the number of roads constructed at the FAS through comprehensive road planning, recognizing foreseeable future uses.

1b. Use existing roads, unless use of such roads would cause or aggravate an erosion problem.

3. Fit the road to the topography by locating roads on natural benches and following natural contours. Avoid long, steep road grades and narrow canyons.

4. Locate roads on stable geology, including well-drained soils and rock formations that tend to dip into the slope. Avoid slumps and slide-prone areas characterized by steep slopes, highly weathered bedrock, clay beds, concave slopes, hummocky topography, and rock layers that dip parallel to the slope. Avoid wet areas, including seeps, wetlands, wet meadows, and natural drainage channels.

5a. Minimize the number of stream crossings.

5b. Choose stable stream crossing sites. "Stable" refers to streambanks with erosion-resistant materials and in hydrologically safe spots.

B. Road Design

2. Design roads to the minimum standard necessary to accommodate anticipated use and equipment. The need for higher engineering standards can be alleviated through proper road-use management. "Standard" refers to road width.

4. Design roads to minimize disruption of natural drainage patterns. Vary road grades to reduce concentrated flow in road drainage ditches, culverts, and on fill slopes and road surfaces.

C. Drainage from Road Surface

- 1. Provide adequate drainage from the surface of all permanent and temporary roads. Use outsloped, insloped or crowned roads, installing proper drainage features. Space road drainage features so peak flow on road surface or in ditches will not exceed their capacity.**
 - a. Outsloped roads provide means of dispersing water in a low-energy flow from the road surface. Outsloped roads are appropriate when fill slopes are stable, drainage will not flow directly into stream channels, and transportation safety can be met.
 - b. For in-sloped roads, plan ditch gradients steep enough, generally greater than 2%, but less than 8%, to prevent sediment deposition and ditch erosion. The steeper gradients may be suitable for more stable soils; use the lower gradients for less stable soils.
 - c. Design and install road surface drainage features at adequate spacing to control erosion; steeper gradients require more frequent drainage features. Properly constructed drain dips can be an economical method of road surface drainage. Construct drain dips deep enough into the subgrade so that traffic will not obliterate them.
2. For ditch relief/culverts, construct stable catch basins at stable angles. Protect the inflow end of crossdrain culverts from plugging and armor if in erodible soil. Skewing ditch relief culverts 20 to 30 degrees toward the inflow from the ditch will improve inlet efficiency.
4. Provide energy dissipators (rock piles, slash, log chunks, etc.) where necessary to reduce erosion at outlet of drainage features. Crossdrains, culverts, water bars, dips, and other drainage structures should not discharge onto erodible soils or fill slopes without outfall protection.
6. Route road drainage through adequate filtration zones, or other sediment-settling structures. Install road drainage features above stream crossings to route discharge into filtration zones before entering a stream.

D. Construction/Reconstruction

2. Stabilize erodible, exposed soils by seeding, compacting, riprapping, benching, mulching, or other suitable means.
3. At the toe of potentially erodible fill slopes, particularly near stream channels, pile slash in a row parallel to the road to trap sediment. When done concurrently with road construction, this is one method to effectively control sediment movement and it also provides an economical way of disposing of roadway slash. Limit the height, width and length of these "slash filter windrows" so not to impede wildlife movement.

Sediment fabric fences or other methods may be used if effective.

5. Construct cut and fill slopes at stable angles to prevent sloughing and subsequent erosion.

6. Avoid incorporating potentially unstable woody debris in the fill portion of the road prism. Where possible, leave existing rooted trees or shrubs at the toe of the fill slope to stabilize the fill.

8. Place debris, overburden, and other waste materials associated with construction and maintenance activities in a location to avoid entry into streams. Include these waste areas in soil stabilization planning for the road.

10. When using existing roads, reconstruct only to the extent necessary to provide adequate drainage and safety; avoid disturbing stable road surfaces. Consider abandoning existing roads when their use would aggravate erosion.

E. Road Maintenance

1. Grade road surfaces only as often as necessary to maintain a stable running surface and to retain the original surface drainage.

2. Maintain erosion control features through periodic inspection and maintenance, including cleaning dips and crossdrains, repairing ditches, marking culvert inlets to aid in location, and clearing debris from culverts.

3. Avoid cutting the toe of cut slopes when grading roads, pulling ditches, or plowing snow.

6. Avoid using roads during wet periods if such use would likely damage the road drainage features. Consider gates, barricades or signs to limit use of roads during wet periods.

IV. RECREATIONAL FACILITIES (parking areas, campsites, trails, ramps, restrooms)

A. Site Design

2. Design a site that best fits the topography, soil type, and stream character, while minimizing soil disturbance and economically accomplishing recreational objectives. Keep roads and parking lots at least 50 feet from water; if closer, mitigate with vegetative buffers as necessary.

5. Locate foot trails to avoid concentrating runoff and provide breaks in grade as needed. Locate trails and parking areas away from natural drainage systems and divert runoff to stable areas. Limit the grade of trails on unstable, saturated, highly erosive, or easily compacted soils

6. Scale the number of boat ramps, campsites, parking areas, bathroom facilities, etc. to be commensurate with existing and anticipated needs. Facilities should not invite such use that natural features will be degraded.

7. Provide adequate barriers to minimize off-road vehicle use

B. Maintenance: Soil Disturbance and Drainage

1a. Maintenance operations minimize soil disturbance around parking lots, swimming areas and campsites, through proper placement and dispersal of such facilities or by reseeding disturbed ground. Drainage from such facilities should be promoted through proper grading.

3. Maintain adequate drainage for ramps by keeping side drains functional or by maintaining drainage of road surface above ramps or by crowning (on natural surfaces).

5. Maintain adequate drainage for trails. Use mitigating measures, such as water bars, wood chips, and grass seeding, to reduce erosion on trails.

6. When roads are abandoned during reconstruction or to implement site-control, they must be reseeded and provided with adequate drainage so that periodic maintenance is not required.

V. RAMPS AND STREAM CROSSINGS

A. **Legal Requirements**

1. Relevant permits must be obtained prior to building bridges across streams or boat ramps. Such permits include the SPA 124 permit, the COE 404 permit, and the DNRC Floodplain Development Permit.

B. Design Considerations

1a. Placement of boat ramp should be such that boats can load and unload with out difficulty and the notch in the bank where the ramp was placed does not encourage bank erosion. Extensions of boat ramps beyond the natural bank can also encourage erosion.

1b. Adjust the road grade or provide drainage features (e.g. rubber flaps) to reduce the concentration of road drainage to stream crossings and boat ramps. Direct drainage flow through an adequate filtration zone and away from the ramp or crossing through the use of gravel side-drains, crowning (on natural surfaces) or 30-degree angled grooves on concrete ramps.

2. Avoid unimproved stream crossings on permanent streams. On ephemeral

streams, when a culvert or bridge is not feasible, locate drive-throughs on a stable, rocky portion of the stream channel.

3. Unimproved (non-concrete) ramps should only be used when the native soils are sufficiently gravelly or rocky to withstand the use at the site and to resist erosion.

C. Installation of Stream Crossings and Ramps

1. Minimize stream channel disturbances and related sediment problems during construction of road and installation of stream crossing structures. Do not place erodible material into stream channels. Remove stockpiled material from high water zones. Locate temporary construction bypass roads in locations where the stream course will have a minimal disturbance. Time construction activities to protect fisheries and water quality.

2. Where ramps enter the stream channel, they should follow the natural streambed in order to avoid changing stream hydraulics and to optimize use of boat trailers.

3. Use culverts with a minimum diameter of 15 inches for permanent stream crossings and cross drains. Proper sizing of culverts may dictate a larger pipe and should be based on a 50-year flow recurrence interval. Install culverts to conform to the natural streambed and slope on all perennial streams and on intermittent streams that support fish or that provide seasonal fish passage. Place culverts slightly below normal stream grade to avoid culvert outfall barriers. Do not alter stream channels upstream from culverts, unless necessary to protect fill or to prevent culvert blockage. Armor the inlet and/or outlet with rock or other suitable material where needed.

4. Prevent erosion of boat ramps and the affected streambank through proper placement (so as to not catch the stream current) and hardening (rip-rap or erosion resistant woody vegetation).

6. Maintain a 1 foot minimum cover for culverts 18-36 inches in diameter, and a cover of one-third diameter for larger culverts to prevent crushing by traffic.